

The author reports on her study of the reactions of young children to separation from their mothers during hospitalization. She discusses findings and proposes changes in institutional care.

THE YOUNG CHILD'S RESPONSE TO HOSPITALIZATION: SEPARATION ANXIETY OR LACK OF MOTHERING CARE?

Ellamae Branstetter, R.N., M.P.H.

Background

THIS study is concerned with the reactions of the young child to separation from his mother. Although this problem has been studied in the past few years by investigators who used various methods and approaches, there is still considerable confusion surrounding the topic. Despite this confusion, it is generally accepted that the young child does indeed become upset and disturbed when separated from his parents and especially from his mother, his main caretaker. Two issues which are not so clearly understood, however, are the nature of the child's attachment to the mother which causes the reaction, and the depth of the emotional reaction itself. It is these two unresolved issues which the investigator has explored in the research to be reported here.

Herewith is a brief review of the main theories which have been advanced concerning these two issues. John Bowlby of the Tavistock Clinic in London (1958, 1960a) calls the reaction to separation from the mother "separation anxiety" and accounts for this anxiety through his theory of the nature of the child's attachment to the mother. He conceives of the child's emotional tie to the mother as arising from a series of instinctual response systems (clinging, following, cry-

ing, smiling, sucking). He theorizes that these instinctual responses play a vital part in the genesis of the infant's attachment to the mother, in that these responses serve to act as "social releasers" for the mother. That is, when the child exhibits these behaviors, maternal care-taking activities are evoked. This keeps the mother in close proximity, and insures survival or care for the child. When the instinctual response of crying, for example, is activated, the cries are usually terminated through action by the mother. When the child wants to cling or follow, again it is commonly the mother who provides the terminus for this behavior. Thus she becomes the central figure in the infant's life and these responses, through a rather complex mechanism, become integrated into attachment behavior.

When, however, the response systems are activated and the *one* mother figure on which these responses have become focused is not available (as during a separation experience) then, according to Bowlby, "separation anxiety" results. He describes three phases in this anxiety reaction—protest, denial, and detachment. He also describes the reaction to long-term separation as "grief and mourning," which he says is the same kind of grief and mourning that occurs in adults with the loss of a love object. He

suggests that no amount of substitute mothering can prevent the child's reaction of grief and mourning when he is separated from his mother for a period of time (Bowlby, 1960b).

Bowlby's instinctual response approach leans heavily on ethology, a school of animal behavior study which specializes in describing species-specific inherited behavior patterns. This approach to the genesis of the child-mother tie is at variance with the basic concepts of psychoanalysis, for he considers the tie to the mother as primary, as innately derived, and search for pleasure as a secondary drive which is acquired through learning.

In contrast to Bowlby, Anna Freud (1953) adopts a "learning theory" approach to the child-mother attachment. She considers the child's attachment to the mother as the outcome of the mother's ministering to the child's needs. The infant, feeling pain from hunger, gradually learns the association between the relief of bodily need, the food that relieves the need, and the person (the mother) who gives the food that relieves the tension from need. There is a gradual transformation of the mother-child relationship over the first year of life, and because of the satisfying experiences which the mother has given, the child's first love or attachment relationship begins. Thus Anna Freud's theory, contrary to Bowlby's, considers the child's tie to the mother to be secondarily derived and governed by the pleasure-pain principles. She contends that Bowlby reverses the order of importance of these two events.

Anna Freud also questions Bowlby's attempts to equate the underlying psychic processes in the grief and mourning of the young child with that of the adult. She contends that although the behavioral manifestations may be similar, the young child's mental apparatus has not matured. Therefore, we cannot assume the young child's conception of

the permanence of an object to be the same as that of the adult. She suggests that more information is needed concerning both the duration of the grief process in the infant and young child, and the length of time needed before the child can transfer his attachment from one mother figure to another.

Another interesting consideration arises from Schaffer and Emerson's recent study (1964) of the formation and development of social attachments in infancy. They suggest that the core of attachment behavior lies in the tendency of the young to seek the proximity of others of their species. Using the criterion of the child's immediate response to separation as an indicator that attachment has occurred, they found that one-third of the infants in their study formed multiple-object attachments. That is, although the mother may be the principal object of attachment for the child, that the child may also be, at the same time, strongly attached to others such as father, grandmother, and siblings. Attachment to the mother, then, does not exhaust the infant's attachment behavior.

However, it has not been clear in any of the studies reported thus far whether the reaction to separation has been anxiety, grief at loss of the mother (the object of attachment), or *distress* caused by the absence of the care of a familiar adult.

Aim and Design of Study

The general aim of this project was to compare groups of young children who were in the hospital in order to differentiate whether the reaction to separation is due to the child's attachment to the mother, to the stress of the hospital experience itself, or to need deprivation (lack of mothering care). A further aim was to determine and compare between groups the degree of depth of psychological upsetness, whether distress, mourning, and so on.

A design was developed that would enable comparison of affective responses of three groups of children, ages 14 to 36 months, under three conditions of separation from mothering. These three groups (10 subjects in each group) were defined as follows:

The Mother-Present Group—These were children whose mothers remained with them day and night through a rooming-in plan.

The Substitute-Mothering Group—These were children whose mothers could not remain in the hospital with them, but who had, for most of their waking hours, the presence of a person giving substitute-mothering care. These substitute mothers were selected on the basis of qualities of personal warmth and an interest in children. Included in this group were high school students, volunteers, graduate students, and student nurses, who were given a brief orientation, and instructed to devote all of their time to the child.

The Mother-Absent Group—These were children whose mothers could not remain with them in the hospital. These children had no other specific person acting in the role of the mothering agent, but were given the usual care offered in the pediatric unit.

It was proposed that the mother-present group, as compared with the other groups, would show the stress of the hospitalization experience. Comparison of the mother-absent and the substitute-mothering groups would give information regarding the extent to which the separation reaction is caused by deprivation of mothering care or by the emotional tie to the mother.

The groups were equated for age and sex. Other criteria used in selection of subjects were: (1) that the child had no previous separation from the mother because of hospitalization; (2) that the family of the child was intact at the time of admission to the hospital; (3) that the child was not acutely ill, was not having surgery, and was of normal physical and mental development.

An attempt was made to equate the groups for social class status—this was not possible in all cases—but 80 per cent of the subjects came from upper-lower class or middle class homes.

Data were collected through the use of naturalistic observations in the hospital setting. Systematic observations, 15 minutes in length, were made twice daily (morning and afternoon) of each child on the second, third, fifth, and seventh day of hospitalization.

During the observation period the observer recorded the child's behavior as it occurred. These observations were made directly on tape through the use of a small transistor tape recorder. The observed behavior was transcribed into narrative form by a typist. This transcribed narrative protocol was then divided into units of behavior as defined by Stevenson and Stevenson (1961). According to this definition a unit of behavior, is created by three conditions: (a) an observable change in environment followed by an observable change in the subject's behavior; (b) an observable change in environment followed by no observable change in the subject's behavior; and (c) no observable change in environment prior to an observable change in the subject's behavior.

Each unit of behavior was then assigned a category of behavior, using a category scheme especially designed for this study. The category scheme consists of behavior variables consistent with the behavior of children of this age group. These variables are generally considered to be acquired motivational characteristics which can be inferable from observation. Those general variables included Dependency, Aggression, Social Interaction, Social Isolation-withdrawal, Play, Curiosity-attention, Autonomous Activities, Self-oriented Activities (autoeroticism), Crying, and Fear.

Reliability for method of observation was established at 95 per cent agreement; for dividing the narrative into units of behavior at 98 per cent agreement; and for assigning categories of behavior to the units at 93 per cent agreement.

Results

Results showed clear behavior differences between the groups. The substitute-mothering group showed behavior similar to that of the mother-present group. These two groups manifested *much less disturbed* behavior than did the mother-absent group. The mother-absent group was, on the whole, generally unhappy and upset. Their upsetness was demonstrated in behavior that ranged from loud, angry, continuous crying to a mournful sadness and withdrawal from others.

Data were analyzed through use of multivariate analysis of variance. Table 1 shows the multivariate condition effects.

The children in the substitute-mothering and mother-present groups played more, cried less, interacted more with others, withdrew from others less, and engaged in self-oriented activities less than did the children in the mother-absent group. The presence of the substitute-mothering person in this stressful separation experience did reduce the amount and the depth of emotional upset experienced by the child. Furthermore, the children in the substitute-mothering group did readily and willingly accept the attention and care offered by the substitute mothers. While most of the children showed an accepting but reserved behavior toward the substitute mother during the first day, all freely interacted with her by the middle of the second day, and looked to her for care, assistance, and social interaction. By the fourth day, in most cases, definite signs of the child's attachment to the substitute mother were obvious to the casual observer. For example, after three days of substitute mothering, Eric, a 30-month-old boy, waited patiently and watchfully at the elevator each morning at about 8:00 a.m. for his substitute mother. Others freely displayed affection for the substi-

tute mother after she had been with them for three or four days. Cris, a 25-month-old child, consistently called his substitute mother "Mommie" after four days. He behaved so naturally with his substitute mother that the mothers of other children on the unit believed her to be his own mother.

It is important to note, however, that the substitute-mothering person did not *replace* the mother in the child's affection, for the children did not "forget" their own mothers. Unfailingly, when the child's mother came to visit or to take him home and the substitute mother was present, the child went to or reached out for his mother immediately, and thereafter ignored the substitute mother as though she were not even present.

Conclusions

These results show how unnecessary is the extreme distress often seen in the young child who is separated from his mother because of hospitalization. This

Table 1—Comparison of mean frequencies of behavior according to condition of mothering

Behavior variable	Mother present	Substitute mother	Mother absent
Dependency	4.75	6.07†	8.16‡
Aggression	1.51	1.07	2.40†
Social interaction	13.03	13.52	8.81*
Play	20.12	22.75†	7.28*
Curiosity	12.40	16.93*	17.23
Autonomous activity	7.45	7.85	7.11
Withdrawal	2.47	3.45*	8.20*
Self orientation	3.35	3.82*	10.96*
Crying	3.87	1.78‡	11.33*
Fear	1.17	1.40	1.78

* $p = 0.01$

† $p = 0.05$

‡ $p = 0.10$

Noted significance in any column indicates difference with means of previous column.

distress need not happen. It can be eliminated or drastically reduced in intensity. For it is clear that the child in the age group 14 to 36 months will not only accept care from an attentive, affectionate mother substitute, but will also show, fairly quickly, evidence of attachment behavior toward this substitute.

The acceptance of the substitute-mothering care can be explained through a consideration of the level of intellectual and effective development of the young child. For, while we can assume that these children have the concept of the permanence of objects, and have the ability to evoke a mental image of the lost mother—we *cannot* assume these concepts and abilities to be completely stable. The young child's mental structures are not mature, and his ability to remember over a period of time is not like that of the adult. So it is highly possible that his concept or mental image of his mother as a special loved person becomes diffused with his association of her as comforter, a protector, and a caretaker.

In a separation situation and in a strange environment the child is in a position of extreme need for caretaking. He is thus able and willing to accommodate to and accept care from the person who shows those same caretaking characteristics which he has come to associate with his mother. At this level of development, the loss of his mother as a clearly distinct object of his love cannot be separated out by him from the loss of his mother as a source of need gratification, caretaking, and social stimulation.

I propose, therefore, that the emotional distress seen in hospitalized children in this age group originates from need deprivation—a lack of mothering care rather than from anxiety per se due to the loss of the mother as a special irreplaceable object of love.

Perhaps the process which has been described as grief and mourning in

long-term separation could better be described as stimulus deprivation or social deprivation with lack of opportunity for establishing an attachment relationship with a constant caretaker.

If these propositions and findings are accepted, it becomes immediately necessary to reconsider the current methods of caring for the child who is separated from his mother while he is in the hospital or other institutional setting. It is, of course, most desirable that the mother or father be able to remain in the hospital with the young child. Frequently, however, this is not possible; therefore, modifications of current systems of institutional care must be looked to as a means of reducing the upset and trauma experienced by these children. One modification I would like to suggest concerns the use of volunteer and minimally trained personnel. Perhaps the role of some of these persons could be altered to include substitute-mothering activities on a planned, rather than a haphazard basis. Another modification concerns the physical arrangement of most pediatric or child-care units. Planning should be geared to physical arrangements that will promote interaction with others rather than one which facilitates the child's tendency to withdraw from social interaction.

It must be remembered that these findings apply to an age group of young children who are at a specific level of development.

NOTE: Information on observations of behavior patterns of a 30-month boy, who was in the Mother-Absent Group, are available from the author upon request.

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Miss Branstetter is a Professor at the College of Nursing, Arizona State University, Tempe, Ariz.

This paper was presented before a Joint Session of the Public Health Nursing, Maternal and Child Health, and Mental Health Sections of the American Public Health Association at the Ninety-Fifth Annual Meeting in Miami Beach, Fla., October 23, 1967.

This research was made possible through a grant from the American Nurses' Foundation.

Course to Be Based on Study of Craniofacial Birth Defects

The Center for Craniofacial Anomalies, The Division of Services for Crippled Children, and The Center for Handicapped Children offer a short course that will present materials drawn from the longitudinal studies (in progress since 1949) on children with craniofacial birth defects. The data include various facial clefts, Pierre Robin syndrome, mandibulofacial dysostosis, premature craniofacial synostosis, microtia, and oral-facial-digital syndrome, among other entities. Participants from the staff will include dentists, dermatologists, geneticists, ophthalmologists, otolaryngologists, pediatricians, plastic surgeons, public health practitioners, psychologists, sociologists, and speech and hearing scientists. The dates of the course are April 9 through 11.

Detailed information may be obtained from Dr. Samuel Pruzansky, Director, Center for Craniofacial Anomalies, University of Illinois Medical Center, P. O. Box 6998, Chicago, Ill. 60680.